

What is claimed is:

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1. A photoresist composition comprising:
 - 1) a component that comprises photoacid-labile groups;
 - 2) a sulfonium photoacid generator compound that is substituted with one or more of a moiety that has at least 2 carbon atoms and is selected from optionally substituted alkyl, optionally substituted alkenyl, optionally substituted alkynyl, optionally substituted heteroalkyl, optionally substituted heteroalkenyl or optionally substituted heteroalkynyl; and
 - 3) a non-hydroxylic solvent, and wherein the composition is at least essentially free of a hydroxylic solvent.
 2. The composition of claim 1 where the photoacid generator is substituted with a moiety having 3 or more carbon atoms.
 3. The composition of claim 1 where the photoacid generator is substituted with a moiety having 4 or more carbon atoms.
 4. The composition of claim 1 wherein the photoacid generator is substituted by one or more alkoxy groups.
 5. The composition of claim 1 wherein the photoacid generator is substituted by one or more alkyl groups.
 6. The composition of claim 1 wherein the photoacid generator is a triaryl sulfonium salt that has one or more aryl groups substituted by the moieties.
 7. The composition of claim 1 wherein the photoacid generator is a triphenyl sulfonium salt that has one or more phenyl groups substituted by the one or more moieties.

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12. The composition of claim 11 wherein the arylsulfonate counter anion is substituted with one or more electron-withdrawing groups.
13. The composition of claim 1 wherein the photoacid generator is a sulfonium salt that has an alicyclic sulfonate counter anion.
14. The composition of claim 13 wherein the alicyclic moiety of the counter anion is substituted with one or more electron withdrawing groups.
15. The composition of claim 1 wherein the photoacid generator is a sulfonium salt that has an acyclic sulfonate counter anion.
16. The composition of claim 15 wherein the acyclic moiety of the counter anion is substituted with one or more electron withdrawing groups.
17. The composition of claim 1 wherein the photoacid labile component is a resin binder of the photoresist composition.
18. The composition of claim 1 wherein the photoacid labile component comprises acetalester or ketalester groups.
19. The composition of claim 1 wherein the photoacid labile component comprises carbonate, ester, ether or imide acid labile groups.
20. The composition of claim 1 wherein the non-hydroxylic solvent is a glycol ether.
21. The composition of claim 1 wherein the non-hydroxylic solvent is propylene glycol methyl ether acetate (PMA).

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22. The composition of claim 1 wherein the composition contains less than about 10 weight percent, based on total weight of the composition, of a hydroxylic solvent.

23. The composition of claim 1 wherein the composition contains less than about 5 weight percent, based on total weight of the composition, of a hydroxylic solvent.

24. The composition of claim 1 wherein the composition contains less than about 2 weight percent, based on total weight of the composition, of a hydroxylic solvent.

25. A photoresist composition comprising:
1) a component that comprises photoacid-labile groups;
2) a sulfonium salt photoacid generator compound that has an arylsulfonate, alicyclic or acyclic sulfonate counter anion; and
3) a non-hydroxylic solvent, and wherein the composition is at least essentially free of a hydroxylic solvent.

26. The composition of claim 25 wherein the arylsulfonate, alicyclic or acyclic moiety of the counter anion is substituted with one or more electron-withdrawing groups.

27. A positive-acting photoresist composition comprising:
1) a component that comprises photoacid-labile groups;
2) a photoactive compound that is a triarylsulfonium salt that has a sulfonate counter anion;
3) a hydroxylic solvent.

28. A method for forming a photoresist relief image onto a substrate comprising:

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- a) applying a coating layer of a photoresist composition of claim 1 on a substrate;
- b) exposing and developing the photoresist coating layer to provide a relief image of the photoresist composition.

29. A method for forming a photoresist relief image onto a substrate comprising:

- a) applying a coating layer of a photoresist composition of claim 24 on a substrate;
- b) exposing and developing the photoresist coating layer to provide a relief image of the photoresist composition.

30. A method for forming a photoresist relief image onto a substrate comprising:

- a) applying a coating layer of a photoresist composition of claim 26 on a substrate;
- b) exposing and developing the photoresist coating layer to provide a relief image of the photoresist composition.

31. An article of manufacture comprising a substrate having coated thereon the photoresist composition of claim 1.

32. An article of manufacture comprising a substrate having coated thereon the photoresist composition of claim 24.

33. An article of manufacture comprising a substrate having coated thereon the photoresist composition of claim 26.

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Sub 3